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EXAMINER	
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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Application Number: 09/967,232
Filing Date: September 28, 2001
Appellant(s): JONES ET AL.

Joey C. Yao
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 5/29/09 appealing from the Office action mailed 12/18/08.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct. It is noted the non-entry of an amendment after final is a petitionable matter and not a matter subject to appeal.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

WITHDRAWN REJECTIONS

The following grounds of rejection are not presented for review on appeal because they have been withdrawn by the examiner. All the nonstatutory obviousness-type double patenting rejections over Patent Nos. 6,880,692, 6,913,130, 6,959,800, 6,955,253, and 6,868,954 in view of Izawa et al (5,420,406), 7,103,438, 7,201,320,

6,843,418, 7146,245, 7,016,767 and provisional nonstatutory obviousness-type double patenting rejections over copending Application No. 09/684,103 in view of Izawa et al (US 5,420,406).[1]

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

5,790,697	MUNRO et al	8-1998
5,420,406	IZAWA et al	5-1995
6,264,556	IZAWA et al	7-2001
5,620,079	MOLBAK	4-1997
6,112,982	AHLQUIST et al	9-2000
5,293,033	YAMASHITA	3-1994
5,548,110	STORCH et al	8-1996
5,777,314	ROUSTAEI	7-1998
6,754,636 B1	WALKER et al	6-2004
4,690,268	UESHIN	9-1987

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

[1] The grounds of rejection set forth in the final rejection of December 18, 2008 have not been reproduced

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1-[6][2] are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

3. It is not clear whether the return receptacle is "configured" to return substitute funds. For example, in Claim 1, last two lines, the return receptacle does not effect "returning" substitute funds, but instead only recites a receptacle that holds a stack of mixed currency and currency substitutes.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to

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below.

[2] The final rejection of December 18, 2008 lists claims 1-7; however, claim 7 is not subject to appeal and is withdrawn as to a non-elected invention.

consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

7. Claims 1, 5, 6, 11, 15, 17-20, 22-24, 33-36, 38-40, 49, 56, 59, 65, 68-70, 79, 80, 87 and 89 are rejected under 35 U.S.C. 103(a) as being unpatentable over Munro et al (US 5,790,697) in view of Izawa et al (US 5,420,406).

Regarding Claims 1, 11, 38-40, 56, 79, 87 and 89, Munro discloses a document processing apparatus (10) that processes stacks of currency placed in an input receptacle (12) in mixed denominations through a transportation mechanism (16) past a discriminating/evaluating unit (18a, b) to one or more output receptacles (20). See Abstract and figure 2a of Munro. Munro also discloses a controller (30) with a memory (34). Munro also discloses sending flagged unacceptable bills to a particular output receptacle while also sending acceptable bills to another output receptacle. See col. 93, line 10-col. 94, line 24.

Regarding Claim 80, Munro discloses stranger bills, no call bills, suspect bills, flagged bills and authentic bills.

Regarding Claims 5, 6, 23 and 24, Munro discloses operating said apparatus at a range of speeds at col. 43, lines 10-15 and 62-67.

Regarding Claims 15, 17-20, 22, 65, 68-70, note that Munro illustrates a display/interface in which a user can program the apparatus. See Munro, figures 62-64.

Regarding Claims 1, 11, 33-36, 49, 56, 59, 79, 87 and 89, Munro does not expressly disclose, but Izawa discloses an evaluation unit having both a

validator/discriminator (10) and a barcode reader (24, 25), in which the controller converts a signal generated by the barcode reader into a set of characters, for the purpose of processing both barcoded documents as well as paper currency. See abstract, col. 2, line 47-col. 3, line 36 and col. 5, lines 21-44.

At the time of the invention, it would have been obvious to one of ordinary skill in the art to have incorporated a barcode reader in Munro's evaluation device, as taught by Izawa, for the purpose of handling barcoded documents placed in the same stack of documents as paper currency.

Regarding Claim 35, official notice is taken that it is obvious to use a mirror to direct light beam to therefore direct them toward a detector/reader. Applicant's specification admits at p. 10, line 18-p 12, line 6 that barcode readers are well-known in the art and are well-known to include mirrors for deflecting light as required by the situation, i.e., depending upon how close the reader is placed to the scanned document.

8. Claims 2-4 and 51-54 are rejected under 35 U.S.C. 103(a) as being unpatentable over Munro et al (US 5,790,697) in view of Izawa et al (US 5,420,406) and further in view of Izawa et al (US 6,264,556 B1).

Regarding Claims 2-4 and 51-54, Munro discloses the document processing apparatus (10) as described above.

Munro does not expressly disclose, but Izawa discloses use of coded coupons, scrip or secured paper, which is considered to be paper tokens and substitute funds at abstract and col. 3, line 53-col. 4, line 7.

At the time of the invention, it would have been obvious to one of ordinary skill in the art to have processed various types of substitute funds such as casino scrip, coupons, gift certificates, and paper tokens or any other type of secure document typically used in commerce in Munro's apparatus, as taught and suggested by Izawa since Munro's device is intended to process secure documents typically used in commerce and one ordinarily skilled would have found it logical to configure the validator to accept as many formats of cash available that customers use in commerce for the purpose of promoting increased use of the machine.

9. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Munro et al (US 5,790,697) in view of Izawa et al (US 5,420,406) and further in view of Molbak (US 5,620,079).

Regarding Claim 12, Munro discloses the document processing apparatus (10) as described above.

Munro does not expressly disclose, but Molbak discloses incorporation of a communication port (1826, 1828), as illustrated in figures 18a and b.

At the time of the invention, it would have been obvious to one of ordinary skill in the art to have incorporated a communication port in the form of a modem, as taught by Molbak, in Munro's apparatus, for the purpose of transferring data. See Molbak at col. 11, line 62-col. 12, line 29.

10. Claim 25 is rejected under 35 U.S.C. 103(a) as being unpatentable over Munro et al (US 5,790,697) in view of Izawa et al (US 5,420,406) and further in view of Ueshin (US 4,690,268).

Regarding Claim 25, Munro discloses the document processing apparatus (10) as described above.

Munro does not expressly disclose, but Ueshin discloses incorporation of a facing mechanism (20), as illustrated in figures 2-7.

At the time of the invention, it would have been obvious to one of ordinary skill in the art to have incorporated a facing unit, as taught by Ueshin, in Munro's apparatus, for the purpose of reversing a banknote.

11. Claims 26-29, 50, 55 are rejected under 35 U.S.C. 103(a) as being unpatentable over Munro et al (US 5,790,697) in view of Izawa et al (US 5,420,406), further in view of Ahlquist et al (US 6,112,982), further in view of Yamashita (US 5,293,033), further in view of Storch ( ), further in view of Roustaei (5,777,314) and still further in view of Walker et al (US 6,754,636).

Regarding Claims 26-29, 50 and 55, Munro discloses the document processing apparatus (10) as described above. Note that Munro discloses various sensors such as magnetic sensors as well as optical sensors, each of which can be used to identify different substitute media having features detected by said sensors.

Note also that Izawa '406 discloses two barcode sensors (24 and 25) as well as magnetic sensors (20), infrared sensor (26), each of which can be used to identify different substitute media having features detected by said sensors.

Munro does not expressly disclose, but Ahlquist discloses incorporation of multiple barcode readers (80, 82 and 84), as illustrated in figure 3 and discussed at

col. 3, lines 20-30, for the purpose of creating redundancy so as to ensure that barcodes transported along a transport mechanism are read.

Munro does not expressly disclose, but Yamashita discloses using multiple barcode readers, as illustrated in figures 1 and 2 for the purpose of ensuring the reading of barcodes located on various sides of a transport path through which the barcodes are transported. See Yamashita, abstract.

Munro does not expressly disclose, but Walker discloses at col. 36, lines 45-57, that vouchers may exhibit several barcodes on them.

Munro does not expressly disclose, but Storch discloses use of barcodes on currency. See figure 28 of Storch, which illustrates an upper and lower barcode with a reader placed to read the upper barcode.

Munro does not expressly disclose, but Roustaei discloses use of different types of barcodes, such as one, two and three-dimensional barcodes and using various readers for reading such barcodes. See abstract and col. 10, lines 7-42 of Roustaei.

At the time of the invention, it would have been obvious to one of ordinary skill in the art to have incorporated more than one barcode of various types for the purpose of imparting various information in a secure fashion on a secure document. See again Walker and Storch.

Additionally, it would have been obvious to one of ordinary skill in the art to have placed more than one barcode reader at any orientation necessary along the transport path of bills since one ordinarily skilled would have found it logical to do so for the

purpose of redundancy as well as to obtain various barcodes located in different areas of a voucher or a currency bill. See again, Yamashita and Ahlmquist.

Further, it would also have been obvious to use various types of barcodes, i.e., symbology, such as one or two dimensional barcodes, which are read by different readers, for the purpose of imparting different information. See again, Roustaei.

Further regarding Claim 55, note that it would have been obvious as a matter of design choice to have made the barcoded media the same size as US currency bills, for the purpose of ensuring that the document processor can handle both bills and the media through the same transport mechanism as well as the fact that substitute media of same size as traditional currency can be easily stored in a customer's wallet or purse, i.e., anywhere other traditional paper currency is stored.

WITHDRAWN REJECTIONS

The following grounds of rejection are not presented for review on appeal because they have been withdrawn by the examiner. All the nonstatutory obviousness-type double patenting rejections over Patent Nos. 6,880,692, 6,913,130, 6,959,800, 6,955,253, and 6,868,954 in view of Izawa et al (5,420,406), 7,103,438, 7,201,320, 6,843,418, 7146,245, 7,016,767 and provisional nonstatutory obviousness-type double patenting rejections over copending Application No. 09/684,103 in view of Izawa et al (US 5,420,406).[3]

[3] The grounds of rejection set forth in the final rejection of December 18, 2008 have not been reproduced below.

(10) Response to Argument

16. Appellant's arguments filed 5/29/09 have been fully considered but they are not persuasive.

Rejection Under 35 U.S.C. 112

Regarding the rejection under 35 U.S.C. 112, second paragraph, Appellant asserts that the non-entered after final amendment filed 2/18/09 make moot this rejection. The Examiner is in agreeable to amending Claim 1 accordingly should the Board find for Appellant. The entry of the amendment is a petitionable matter and will not be addressed in this Examiner's Answer.

Rejections Under 35 U.S.C. 103

Rejection of Independent Claims 1, 11, 56, 79, 87 and 89 Over Munro in view of Izawa '406

Appellant asserts that Appellant's claims do not read on the combination of Munro in view of Izawa '406.

Appellant's Independent Claim 1 is recreated below as exemplary of the independent claims.

1.(Previously Presented) A funds processing system including at least one funds processing machine in which a user inputs currency bills and substitute funds, the at least one funds processing machine comprising:

an input receptacle configured to receive a stack of a mixed combination of currency

bills and substitute funds;

a processing module coupled to the input receptacle and configured to receive the currency bills and substitute funds from the stack in the input receptacle and to process the currency bills and substitute funds, the processing module being configured to distinguish currency bills from substitute funds and valid substitute funds from invalid substitute funds; and

a return receptacle coupled to the processing module and configured to return the substitute funds to the operator of the funds processing machine.

Appellants at p.24 of The Brief, lines 3-5, mention that combining Munro and Izawa would require the principle of operation of one of the references to be modified. Appellants have attacked the two references, Munro and Izawa separately. However, in response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.,* 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Essentially, Munro, assigned to Appellants, discloses all of the elements of claim 1 except a processing module that also includes a substitute funds sensor. A barcode reader, as taught and disclosed by Izawa is considered to be just such a sensor. Izawa also includes a sensor for reading regular currency bills in the same machine. See Izawa at col. 2, line 47-col. 3, line 36 and col. 5, lines 21-44. Appellants assert that because Izawa does not discloses nor teach an input receptacle to accept a stack of mixed currency bills and substitute funds that Izawa cannot be combined with Munro.

However, Izawa is not being used for its teaching of accepting stacks of mixed currency types, but of incorporation of a barcode sensor that will effectuate processing and validating both regular currency bills and substitute documents in the same device, i.e., using the same document path. Also note that regardless of whether the stack is fed in from an input receptacle or one by one, the process is the same. In other words, even a stack of bills is fed in one by one into the device from either the top or bottom of said stack. And again, note that Munro discloses such an input receptacle (12 and 209) as illustrated in figures 1 and 2a. Munro also discloses multiple bill stacking units (20) also in figure 2a. A discriminating sensor (18a,b) that is configured for evaluating regular currency bills is disclosed by Munro at col. 27, line 42-col. 28, line 5.

Izawa discloses a bill validator (10) with a magnetic sensor (20) and an infrared sensor for discriminating regular currency bills. Izawa also discloses barcode sensors (24, 25) which sense barcoded documents other than regular currency bills. Such documents include coupons, valuable securities or negotiable papers, as mentioned in the field of invention at col. 1, lines 5-10. Both sets of sensors are located along the passageway (13). See Izawa, figure 1 and col. 3, line 50-col. 4, line 10.

Since one ordinarily skilled in the art would have recognized the applicability of Izawa's barcode sensors to Munro's document processing apparatus in light of Izawa's teaching of having both regular currency bill and substitute currency sensors along a single document passageway, it would have been obvious to combine Munro and Izawa to obtain Appellant's claimed apparatus with the predictable results of processing stacks of mixed regular currency and substitute currency.

Appellants assert that Munro and Izawa cannot be combined without modifying the principle operation of one of the references. However, as illustrated previously, all that is added to Munro are additional sensors to read barcoded documents, i.e., substitute documents. Appellants' concentration on what Izawa fails to teach is noted, however, such concentration is misplaced. The examiner's rejection is based on a modification of the Munro system not a modification of the Izawa system.

In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

Appellants assert at the bottom of p. 24, last three lines and onto p.25, first line of the Brief, that using Izawa's teaching in Munro's apparatus "for the purpose of handling barcoded documents placed in the same stack of documents as paper currency" is evidence of hindsight reasoning. However, this is valid reasoning with rational underpinning in light of the processing of mixed denomination stacks by Munro.

Rejection of Dependent Claim 5 over Munro and Izawa '406.

Appellants at p. 26 refer to the rejection of the dependent claims 5, 6, 23 and 24.

However, Munro discloses at col. 43, lines 10-15, operation at speeds of between 800 and 1500 bills per minute. Appellants assert at p. 27, lines 3 and 4, that Izawa cannot process bills at a high rate. However, Izawa is not being used for such a teaching. Munro discloses operation at high speeds. Again, Izawa is only used for its teaching of including a second sensor, i.e., a barcode sensor, for processing other types of documents beside regular currency.

Rejection of Dependent Claim 6 over Munro and Izawa '406.

Appellants at p. 26 refer to the rejection of the dependent claims 5, 6, 23 and 24. However, Munro discloses at col. 43, lines 10-15, operation at speeds of between 800 and 1500 bills per minute. Appellants assert at p. 27, lines 3 and 4, that Izawa cannot process bills at a high rate. However, Izawa is not being used for such a teaching. Munro discloses operation at high speeds. Again, Izawa is only used for its teaching of including a second sensor, i.e., a barcode sensor, for processing other types of documents beside regular currency.

Rejection of Dependent Claim 23 over Munro and Izawa '406.

Appellants at p. 26 refer to the rejection of the dependent claims 5, 6, 23 and 24. However, Munro discloses at col. 43, lines 10-15, operation at speeds of between 800 and 1500 bills per minute. Appellants assert at p. 27, lines 3 and 4, that Izawa cannot process bills at a high rate. However, Izawa is not being used for such a teaching. Munro discloses operation at high speeds. Again, Izawa is only used for its teaching of including a second sensor, i.e., a barcode sensor, for processing other types of documents beside regular currency.

Rejection of Dependent Claim 24 over Munro and Izawa '406.

Appellants at p. 26 refer to the rejection of the dependent claims 5, 6, 23 and 24. However, Munro discloses at col. 43, lines 10-15, operation at speeds of between 800 and 1500 bills per minute. Appellants assert at p. 27, lines 3 and 4, that Izawa cannot process bills at a high rate. However, Izawa is not being used for such a teaching. Munro discloses operation at high speeds. Again, Izawa is only used for its teaching of including a second sensor, i.e., a barcode sensor, for processing other types of documents beside regular currency.

Again, note that in response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.,* 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Rejection of Dependent Claims 2-4 and 51-54 over Munro in view of Izawa '406 and further in view of Izawa '556.

Appellants at p. 28 refer to the rejection of the Dependent Claims 2-4 and 51-54 in the last paragraph, which continues onto p. 29.

Munro discloses the apparatus as described above. Izawa '556 is combined with Munro because it teaches use of coded coupons, scrip or secured paper, which is considered to be substitute funds at abstract and col. 3, line 53-col. 4, line 7. Use of such substitute funds is well-known in the art for use in commercial transactions, as

Izawa '556 teaches. Such a combination has a predictable outcome to one of ordinary skill in the art.

Rejection of Dependent Claim 12 over Munro in view of Izawa and further in view of Molbak.

Appellants at p. 29 refer to the rejection of the Dependent Claim 12 in the last paragraph, which continues onto p. 30.

Munro discloses the apparatus as described above. Molbak is combined with Munro because it teaches use of communication ports (1826, 1828), as illustrated in figures 18a and 18b. Use of such a device is well-known in the art for transferring data used in commercial transactions from a machine such as Munro's to other machines or other financial institutions, as Molbak teaches.

Rejection of Dependent Claim 25 over Munro in view of Izawa '406 and further in view of Ueshin.

Appellants at p. 30 refer to the rejection of the Dependent Claim 25 in the last paragraph, which continues onto p. 31.

Munro discloses the apparatus as described above. Ueshin is combined with Munro because it teaches use of facing mechanism (20), as illustrated in figures 2-7. Use of such a device is well-known in the art for changing the side the bill from one to the other so that both sides can be subjected to discrimination sensors used in a machine such as Munro's, as Ueshin teaches. Such a device is readily combinable with Munro's device with predictable results to those of ordinary skill in the art.

Rejection of Dependent Claims 26-29, 50 and 55 over Munro in view of Izawa '406 and further in view of Ahlquist, Yamashita, Storch, Roustaei and Walker.

Appellants at p. 31 –p.34 refer to the rejection of the Dependent Claims **26-29, 50 and 55** in the last paragraph, which continues onto p. 30.

Munro discloses the apparatus as described above. Appellants' Claims 26-29, 50 and 55 recite obvious combinations of well-known subject matter as illustrated in the cited prior art.

Ahlquist is combined with Munro for its teaching of using multiple barcode readers (80, 82 and 84), as illustrated in figure 3 and discussed at col. 3, lines 20-30, for the purpose of creating redundancy so as to ensure that barcodes transported along the transport mechanism are read.

Yamashita is combined with Munro for its teaching of using multiple barcode readers, as illustrated in figures 1 and 2, for the purpose of ensuring the reading of barcodes located on various sides of a transport path through which barcodes are transported, as mentioned in Yamashita, abstract.

Walker is combined with Munro for its teaching that vouchers may exhibit several barcodes on them at col. 36, lines 45-57.

Storch is combined with Munro for its teaching of using barcodes on currency, as illustrated at figure 28.

Roustaei discloses use of different types of well-known barcodes such as one, two and three dimensional barcodes and using various readers for reading such barcodes, as mentioned at abstract and col. 10, lines 7-42.

Generally, one ordinarily skilled would have found it readily apparent from the teachings of Munro, Alquist, Yamashita, Walker, Storch and Roustaei to use these various well-known elements in Munro's device or to configure Munro's device to handle such elements placed on documents of value processed by Munro's device.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/Jeffrey A. Shapiro/

Primary Examiner, Art Unit 3653

Conferees:

Darnell M. Jayne /dj/

Donald W. Underwood /DWU/